WHIRRAKEE

June 1994 Vol. 15 No. 5

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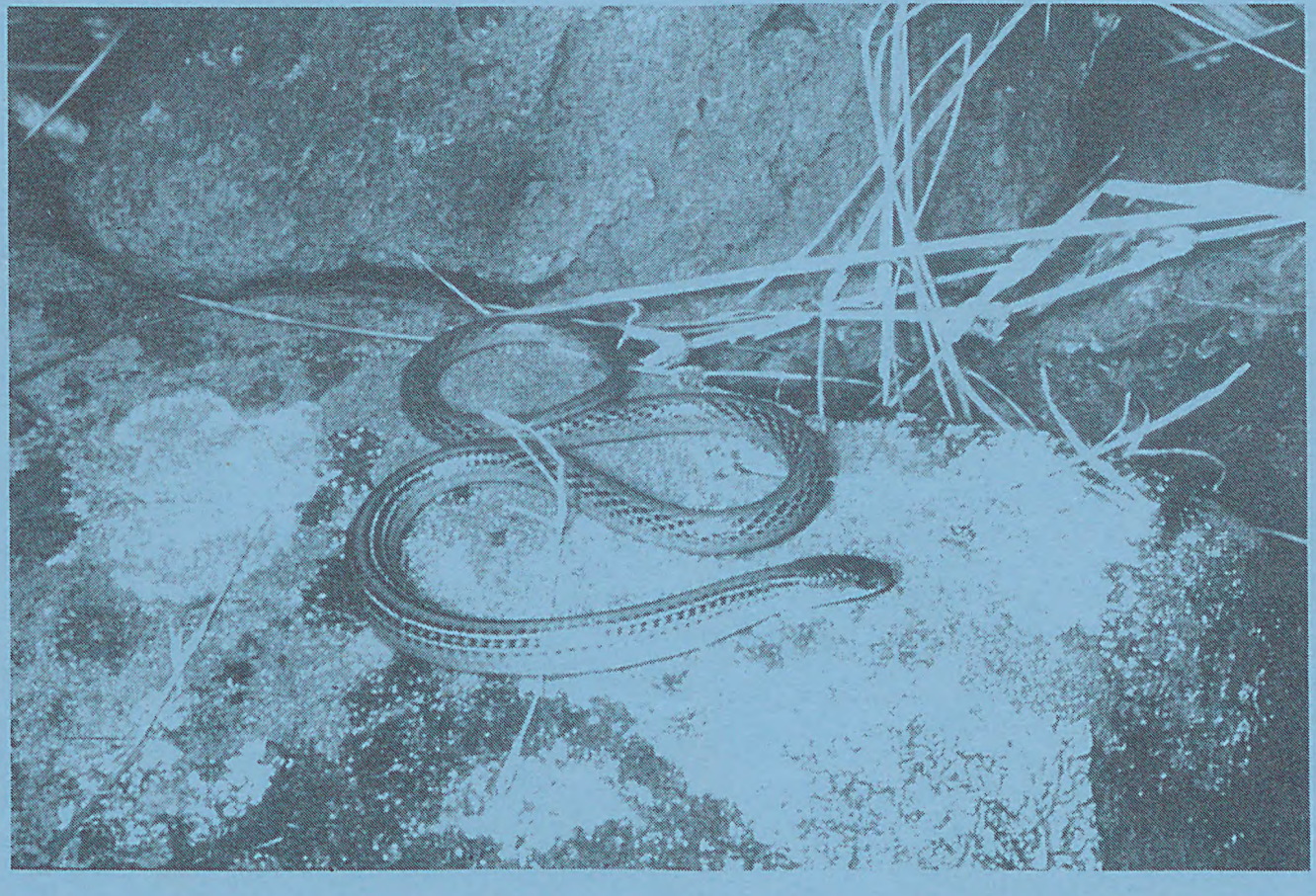

MONTHLY NEWSLETTER OF THE BENDIGO FIELD NATURALISTS CLUB

Bendigo Field Naturalists Club Inc.

Address for correspondence: PO Box 396, Bendigo 3550

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Membership of the Bendigo Field Naturalists Club is open to all those interested in Natural History. The subscription rates are: Single $25; Family $30; Concession: Single $20; Family $25. *Whirrakee* subscription only is $25.

General meetings are held on the second Wednesday of each month. The venue for General meetings is the Department of Food and Agriculture (formerly DARA) Meeting Room, Epsom. Meetings start at 7:30pm and conclude with supper. The Annual Meeting is held in September.

Committee meetings are held on the third Wednesday of each month in members' homes. Members of the Committee are the Office Bearers listed above, together with the following members: J Cleary; W Demeo; R Orr; R Ruddick; M Stone; A Howe; P Howden.

Excursions The assembly point for excursions is outside the Ministry of Education complex in Havlin Street East, Bendigo, unless otherwise specified. Full-day excursions normally commence at 10am (usually on a Sunday); half-day excursions normally commence at 2pm and may be either on a Saturday or Sunday. Full-day or half-day excursions are usually held on the weekend following the General Meeting. Campouts are held several times each year, usually coinciding with long weekends or holiday periods.

The Bendigo Field Naturalists Club has 2 active sub-groups:

Bird Observers Group: meets on the first Friday of the month, at 7:30pm. The venue for meetings is the Department of Food and Agriculture (formerly DARA) Meeting Room, Epsom.

President: Mary Wilson
Secretary: Tom Burton

Mammal Survey Group: meets on the fourth Wednesday of the month at 8pm in members' homes as announced in the monthly diary.

Chairman: John Burtonclay, Fadersons Lane, Mandurang (39 5710)
Secretary: David McDonald,"Mulgara", Guys Hill Road, Strathfieldsaye (39 5756)
Equipment Officer: Ian Fenselau
Vice Chairman: John Guley

Front Cover
Photographer: Dale Gibbons

The rare and endangered Striped Legless Lizard (*Delma impar*), recently discovered and added to the list of reptiles of the Bendigo district. See article on page 3 of this issue.

WHIRRAKEE

Monthly Newsletter of the Bendigo Field Naturalist Club

Vol. 15, No. 5, June 1994

Whirrakee takes its name from the Whirrakee Wattle (*Acacia williamsonii*) which is virtually endemic to the Bendigo region

CONTENT

Item	Contributor	Page
The Finding of the Striped Legless Lizard *Delma impar* Fischer 1882, in the Bendigo Region	Dale Gibbons	3
From the Mailbag	Elaine Mathison	5
Notes and Observations, April and May Meetings1994	Bird Observers Group	6
Report on an Excursion to the Muckleford Creek	Rod Orr	7
Weeds of the Bendigo District	Rod Orr	11
May Club Meeting - Guest Speaker Warwick Bates	Sabine Wilkens	14

Authors are responsible for the accuracy of the information they use and also for any opinions expressed in their articles.
Contributions will be included as soon as possible after they are received, although articles received after the monthly General Meeting will probably be too late for inclusion in the next issue of *Whirrakee*.

Editor's note

Much environmental news is bad news. An Australian company has recently been alleged to have been responsible for appalling damage to the Fly River system of New Guinea, and Malaysian timber companies are alleged to be compounding their vandalism of New Guinea with corruption in high places. There is little that we can do in the face of multinational companies without consciences, but we can act locally. Thus it is heartening that in a recent survey published in 'The Age', environmental concern ranked higher than economic; and in the recent Coburg by-election, the Green vote was over 20%. It is hoped that these pieces of information are sinking into the consciousness of politicians, and will lead to ever more responsible environmental policies in the major parties.

Articles in *Whirrakee* may be reproduced, but permission should be obtained from the Bendigo Field Naturalists Club, and acknowledgment should be given to the author and the Club. Back issues are available at a cost of 80 cents each. Complete sets are available at $ 8.00 for each volume. The above prices do not include postage.

The Finding of the Striped Legless Lizard, (*Delma impar*), Fischer 1882, in the Bendigo Region

Author: Dale Gibbons

The fact that I am interested in things that are rare probably makes me no different from a lot of other practising field naturalists. However, one finds that, when looking for rarities, the success rate is generally small compared to the amount of effort invested.

For quite some years I have wondered about, and searched for, the Striped Legless Lizard, *Delma impar* in this district, and so far accidental or intended encounters with the beast have not occurred. Its close relative, the Olive Legless Lizard, *D. inornata* is quite common hereabouts and often pays the supreme penalty for looking like a snake.

The apparent reason for the Striped Legless Lizard's rarity is the state of decline of its native grassland habitat. It is estimated that 95% of Victoria'a native grasslands have been grossly altered since European settlement. "The major type of grassland which is known to contain Striped Legless Lizards is the Western (Basalt) Plains Grassland community. This community has been listed as threatened on Schedule 2 of the Flora and Fauna Guarantee Act 1988, since only about 0.16% of the original extent of the community now remains". (FFG)

Adult Striped Legless Lizards are slightly thicker than a pencil, can attain an overall length of 30cm and a snout/vent length of up to 115mm. Cogger (1992) describes the lizard thus: "It usually has a dorsal ground colour of yellowish brown, usually with a series of dark brown or blackish dorso-lateral and lateral longitudinal stripes along the length of the body and tail, commencing on the neck. Each stripe is made up of individual black-centred scales, and the lower stripes tend to consist of lines of dark spots."

The distribution and abundance of the Striped Legless Lizard are poorly known (Robertson 1987). The reptile reference books show its distribution as south western, central and north-eastern Victoria, and there are museum records of specimens from: Mitiamo (2) 1912, Mt Hope (1) no date, Maryborough (3) no date, Mia Mia (1) Sept 1962, Lake Meran (1) June 1964. Thus, from these records one assumed the beast may still be extant in this district. Of course, these old records give grid references but, when for example, one says "Mia Mia" and you look up the co-ordinates, it's Mia Mia all right, right in the middle of town! Hardly the place to look for legless lizards! It seems that old museum records generally give only localities, and contemporary curators can do no more than supply the co-ordinates for the locality name.

As the animal is still extant on the basalt country west of Melbourne, I was particularly interested in the Mia Mia site, due to the large area of basalt south-east of the town. Despite several trips out that way over the past few years, no evidence had been found. With friends, I have also looked at some basalt areas west of Bendigo, around Woodstock and between Marong and Newbridge. Here we found the Olive Legless Lizard, *D. inornata*, but not *D. impar*. Interestingly though, we

recorded the Uber Striped Skink, (*Ctenotus uber orientalis*) smaller cousin to the Larger Striped Skink (*C. robustus*) (and equally as fast) for only the third time in this district!

After studying the LCC report's geological map, I decided to investigate the larger area of basalt grassland on the west side of the peninsula of land that divides the two arms of Lake Eppalock. It occurred to me that I had never been to that part of the world. So on Thursday 7/4/94, it was deemed high time to pay the area a visit. Rob Jealous and I arrived there mid-morning and spent several hours lifting rocks, checking underneath, and replacing them if nothing interesting was found. We observed numerous Larger Striped Skink (*C. robustus*) but did not see its smaller cousin the Uber Striped Skink (*C. uber orientalis*)

The finding of the first Striped Legless Lizard at about 1pm was something of an anti-climax as the animal we found only had faint, almost non-existent stripes and didn't look at all like the photos in the reptile books! On the way home I must have looked at it 10 times to see if its stripes had darkened or, (shock horror!) faded out completely, and turned it into an Olive Legless Lizard. We brought him back to town and using contemporary references he was "keyed out" positively as the Striped fellow, phew! Two days later accompanied by friends we returned, and using the knowledge gained previously as to where to look, we found five more in an hour! One of these was sheltering under the same rock as an Olive Legless Lizard! Three of these had very faint stripes and the other two were boldly striped just like the pictures in the books.

On Sunday 8/5/94, Dean Toy, Darren Green, Robert Jealous and I sallied forth and investigated another area, close to Mia Mia. The area we chose was extensively covered in rock and we kept busy, "rock and rolling" (Rock rolling!). By the middle of the day the tally was three more Striped Legless Lizards, which meant that we had found a new colony and possibly the same one that the 1962 animal had come from. Obviously, the lizard has so far only been found in small areas and more work needs to be done to elucidate the extent of distribution, both at this site and elsewhere.

References

Cogger, H.G. (1992), Reptiles and Amphibians of Australia, Reed International Books, Sydney

Wilson, S.K. and Knowles, D.G. (1988), A Photographic Reference to the Terrestrial Reptiles of Australia, Collins

Flora and Fauna Guarantee Publication, Striped Legless Lizard (*Delam impar*), Action Statement No. 17, CNR

Acknowledgements

For field assistance I would like to thank: Rob Jealous, Darren Green, Lindell Rowley, Peter Kruger, Grant Turner and Dean Toy.

For assistance and inspiration, Peter Robertson, ARI.

From the Mailbag
Author: Elaine Mathison

Each month the Club receives a number of newsletters and magazines: some by subscription and some in exchange for *Whirrakee*. These are available from the Club Librarian at our meetings.

THE VICTORIAN NATURALIST (FNCV) Volume 111(2), April 1994
'The Distribution of the New Holland Mouse in the Eastern Otways, Victoria' by Barbara Wilson reports on the results of trapping studies which were analysed to determine the distribution of this animal. The species has a patchy distribution and was caught at few of the sites trapped. Details of the geology and flora of these areas are given. Threats to the survival of the New Holland Mouse such as land clearance and recreational activities are outlined.
'Field Observations of the Behaviour of Free-ranging Eastern Barred Bandicoots at Hamilton, Victoria' by Anthony C. Dufty deals with the methods used in this study, and its results. This species, though fairly plentiful in Tasmania, is seriously endangered on the mainland. The individual and social behaviours noted should assist in the management of both the free-ranging and captive populations in Victoria.
'The Spotted Tree Frog: an Addition to the Amphibian Fauna of the Australian Capital Territory' by W. Osborne and others reports the occurrence of this species outside its previously known range. The Spotted Tree Frog (*Litoria spenceri*) has a limited and declining distribution on the north-west slopes of the Great Dividing Range, between the Central Highlands in Victoria and the Mt Kosciusko region in New South Wales. There is concern about its continued survival at many sites, and it has been listed as a nationally endangered species.
'Australian Spiders: is their Publicity Worse than their Bite?' by Natalie Korszniak and others outlines work being done to investigate the effects of various spider venoms, including huntsman and brown house spiders, white-tailed and wolf spiders.

-Advertisement-

A Field Companion to Australian Fungi (Reprinted 1993)
by Bruce Fuhrer
published by the Field Naturalists Club of Victoria

- This reprint of a book long out of print is now available again. Recent name changes have been incorporated.
- 138 species of fungi are described and illustrated.
- 166 superb photographs taken in the field aid identification and capture the beauty, brilliance, delicate colours, form and structure of these ecologically important organisms.

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What Fossil Plant is That? by J. G. Douglas ($12.50)

All books available from:
FNCV Office, c/- National Herbarium Birdwood Avenue, South Yarra 3141

Notes and Observations - April and May Meetings 1994

Author: Bird Observers Group

Migrants:

Yellow-faced Honeyeater (1) Junortoun, 15/4/94
White-naped Honeyeater Junortoun, 18-24/4/94
Shining Bronze-cuckoo (1) Sedgwick, 20/3/94
Pallid Cuckoo (1) Terricks, 14/4/94
Rainbow Bee-eater (2) Calivil, 30/3/94
Rainbow Bee-eater (2) Junortoun, 14/3/94

Endangered Species

Bush Thick-knee (2) Prairie West, 21/4/94
" " (1) Prairie West, 15/3/94
" " (1) Moama, N.S.W., 11/9/93

Problematic Status

Grey-crowned Babbler (6E) Tandarra, 15/3/94
" " " (6) Prairie West, 15/3/94
" " " (4) near Thunder Swamp, 14/4/94

Seasonal Movers

Welcome Swallow (300 E) Kennington Res, 4/5/94
Golden Whistler (4) Wildflower Drive, One-Tree Hill RP, 10/4/94
" " (1) Junortoun, 11-17/4/94
" " (2) Eppalock Forest, 21/4/94
Black-faced Cuckoo-shrike (5) Calivil, 30/3/94

Birds of Prey

Whistling Kite (1) Terricks, 1/4/94
Little Eagle (1) Terricks, 1/4/94
" " (1) Junortoun, 5-10/4/94
Brown Falcon (2) Terricks, 1/4/94
" " (7) Terricks, 14/4/94
" " (6E) Sedgwick 25/3/94
Kestrel (1) Terricks, 1/4/94
Spotted Harrier (1) Terricks, 1/4/94
Hobby (1) Strathdale, 22/4/94
" (1) Pilchers Bridge, 6/5/94
" (1) Calivil, 15/3/94
Peregrine Falcon (1) Eaglehawk, 11+12/5/94
Brown Goshawk (1) " , 12/5/94
Collared Sparrowhawk (1) Junortoun, 11-17/4/94
" " (1) Calivil, 15/3/94
Black-shouldered Kite (1) Kamarooka North, 31/3/94

Observations

Fantail Cuckoo (1) Maiden Gully, 2/7/93
" " (1) Sedgwick, 19/3/94
Crimson Rosella (5) Millwood Dam, 11/4/93
Silvereye (1, eating psyllid and lerp) Junortoun, 8/4/94
White-winged Chough (9, eating centipede) Sedgwick, 19/3/94
Little Friarbird (1) Kangaroo Flat, 4-10/4/94
Peaceful Dove (1) Sedgwick, 30/4/94
Owlet Nightjar (1, feeding on road) Mandurang, 29/4/94
White-eared Honeyeater (2) Sedgwick, 11/4/94
White-browed Babbler (7) Mandurang, Feb/March '94
Varied Sittella (2) Mandurang, 7/3/94
Yellow-billed Spoonbill (3) White Hills, 23/3/94

Caspian Tern (1) Boort, 6/2/94
Pied Butcherbird (1) Calivil, 15/3/94

Lists
Rochester Sewage Farm, 4/4/92
Terricks Terricks State Park, 31/3-1/4/94; 14/4/94
One Tree Hill Regional Park, 10/4/94
Eppalock Forest, 21/4/94

Notes
At Junortoun the resident Rufous Whistlers had moved by the end of March. Now, instead of being a common, dainty vocalist, they are only noted occasionally as they move through with other species. Instead, Golden Whistlers (brown birds) have moved in.
The Grey-crowned Babblers near Thunder Swamp are a new record for the Club from this location. They were seen in roadside Black Box not far from a patch of Black Box woodland. The small remnants of box woodland in the northern plains are tremendously important for local conservation of these babblers, Bush Thick-knees and many other birds.
At the Calivil Recreation Reserve in March, a Collared Sparrowhawk was seen to have repeatedly chased, unsuccessfully, a Pied Butcherbird. A Hobby was perched in a nearby tree, apparently unconcerned by the kerfuffle. This was a remarkable sight.
Records of bird behaviour are always welcome. Even notes about common birds feeding are interesting and useful, a useful corrective to wild speculation. One of a flock of nine Choughs at Sedgwick was seen to catch a large centipede: 'It ran around calling loudly and evading the others in the group. After tossing it around for a while [the Chough] ate the centipede'. Similarly, at Junortoun, a Silvereye 'ate a lerp from a Grey Box leaf. First it picked off and ate the lerp, and then (in another movement) the psyllid underneath'. The relationships between birds and psyllids and their lerps are not clear cut, as field observations are hard to make, so any notes of clear observations are always useful.
Two other Sedgwick notes are interesting: the White-eared Honeyeaters were the first record from there, and the Peaceful Dove is apparently declining in the area, the bird listed this month being the first seen in some time. Thanks to the observers who used the 'remarks' sections of their Observation sheet.
The committee sometimes has difficulty in deciding whether to accept unusual sightings. Descriptions of the bird, including features used to identify species, weather conditions, visual aids, familiarity with the species and distance from observer would all help. The Arthur Rylah Institute, to which A. Bridley has recently sent another disc containing our bird records, queries unusual records.

Report on an Excursion to the Muckleford Creek near Newstead
(February 1994)
Author: R Orr

One evening in February, I was contacted by Bill Ford, a land-owner near Newstead, who was concerned about the planned use of Muckleford Creek for the disposal of mine water from the Maldon area. He had heard that a mining company intended to de-water some of the deep mines there in their efforts to find worthwhile deposits of gold.

Bill's main concerns centred around the likely impact of these plans on the quality of the Muckleford Creek, particularly from where it crosses the Maldon to Newstead Road to down as far as Newstead. This is the section where the creek flows through a small gorge around the western edge of the Guildford Plateau. He told me on the 'phone that this section of the creek had been well cared for by the land-holders of the properties that the creek flowed through, who had never grazed the land heavily or with cattle so the creek banks were still thickly covered with native vegetation and had been protected from erosion.

He had discovered that large volumes of water were likely to be drained into the creek and he was worried that this would raise water levels and keep them un-naturally high leading to bank erosion along the creek. He was also worried that the water which was to be pumped out of water-filled mine shafts would contribute additional salt-loads to the creek and eventually to the Cairn Curran Reservoir and further downstream to the Loddon River. Already, this river is recognised as having been significantly degraded by the salt-loads in its tributary streams and by urban and agricultural uses of its water and its eventual use as a disposal drain for the large amounts of treated and untreated waste water which results from a wide variety of water uses in the Loddon River Catchment. Bill felt that other options for the disposal of water from de-watering of mines in the Maldon area should be developed instead of using the Muckleford Creek and eventually, of course, Cairn Curran Reservoir and the Loddon River, as a drain for this water simply in order to shift it downstream away from the mining operations. It seemed that the Creek disposal option was favoured only because it was convenient, quick and cheap from the miner's viewpoint and that the well-being of others who might be affected was not even being considered.

As a result of our telephone discussions, we arranged an impromptu inspection of the Muckleford Gorge for any interested members of the Bendigo Field Naturalists Club who could attend - none of us had seen the area before although a couple of our members had heard about the presence of platypus in the creek. Bill and his son led us to the area and walked us down to the creek and then along its bank for several kilometres before we completed the loop and arrived back at the cars.

Well, we now know from what we were shown during our brief excursion that there is a beautiful, natural, undamaged section of this small creek flowing through a very attractive small gorge. The creek was flowing through large deep pools (see photograph on this page), John Lindner swam in one of them towards the end of our walk and acted as our depth gauge - about 3 metres deep. The first feature of the area that Bill showed us was an enormous, solitary Grey Box surrounded by an impressive accumulation of fallen branches, many of which were themselves the size of large trees. This tree was a giant and appeared to be very healthy and growing vigorously despite its great age, (see photograph on page 10). In the distance we could see the top of the Guildford Plateau with its cap of weathered basalt and hidden between the Grey Box and the Plateau was the Muckleford Gorge lined by Red Gums whose tops we could just see.

One of the beautiful deep pools along the Muckleford Creek.
Native grasses in the foreground, Red Gums, native sedges and rushes on the Creek banks. A dead platypus was found near this pool.
Photographer: Jan Orr

We walked down into the gorge and along the creek bank and found a dead Platypus lying in the dry grass well above the water line. The cause of its death was not obvious - it didn't smell too bad so it couldn't have been dead for many days. Bill and his son often see Platypus in the creek along this section of the gorge where there are several deep pools and a good creek bank cover of native vegetation. Early afternoon was not a good time to be Platypus watching although it was a pleasant, hot day for a walk alongside a shady creek.

I was very impressed by the generally weed-free nature of the area. Most of the plants we observed were native trees, shrubs and grasses, and native wetland plants growing in and along the creek. When we did notice weeds, they were generally present only in very small numbers and were being competed with by vigorously growing native plants.

It was unusual to be able to walk along a creek bank that wasn't eroded and liberally covered with cow manure. We all agreed that this really was a beautiful place and must be kept undamaged. Bill told us of unusual fish catches from some of the deep pools along the creek - large Murray Cod had been caught on several occasions during his father's lifetime. Fishing interest in the area had declined during Bill's lifetime, because, he thought, modern-day fishermen were not so keen on walking long distances to find good fishing spots, so they had found easier places to fish and had forgotten this small creek.

All it would take to ruin this beautiful place is an extra input of someone else's waste water. Raising water levels would cause more rapid flow rates and increased erosion; water with large concentrations of dissolved materials would threaten the survival of remnant populations of native animals which depend on the unpolluted nature of the creek; any increase in suspended material carried into this area by water discharged from the de-watering of mines near Maldon would muddy the lovely deep pools along this creek. To use such an attractive natural creek simply as a disposal drain for the water which a mining company sees as an impediment to their activities would be a primitive, brutal and inexcusable assault on the natural environment of this area.
This is the very behaviour that mining companies tell us they have grown out of. Even though earlier miners may not have considered the environmental consequences of their actions, modern-day mining companies claim that they now respect the natural environment and avoid damaging it. One obvious way to demonstrate such environmentally sensitive intentions would be to divert mine-water obtained as a consequence of the de-watering of mines, away from natural drainage lines and into properly constructed evaporation ponds built and paid for by the mining company. Another possibility may be that the water could be seen as a useful resource rather than as waste-water, so encouraging its productive use.

The proper management of water obtained from the de-watering of old mines must be accepted as a cost to the miners of their mining activities and must not be transferred to the community in the form of environmental degradation of natural sections of minor streams. If this water can not be managed without discharging it into drainage lines which flow into the Muckleford Creek which would degrade its present environmental value and reduce it to the status of a drain, then the de-watering of these mines near Maldon should not be allowed.

The Muckleford Creek and its gorge would be a really good location for an official club excursion (perhaps jointly with Castlemaine FNC) during Spring when we should be able to recognise a much wider variety of native plants while they were flowering. We should certainly revisit the Muckleford Creek while it remains such an attractive natural area and we need to do everything possible to ensure that it remains in its present condition and doesn't become just another degraded stream.

The more of us Field Naturalists who know about these rare and threatened natural areas the better - they certainly need our efforts to protect them!

An enormous solitary Grey Box.
Bill Ford walked us down past this tree because he found it so impressive a specimen - so did we! The fallen branches were themselves the size of 20 to 30 year old eucalypts.
Photographer: Rod Orr

Weeds of the Bendigo District
Author: R Orr

The following statements are some of the common responses provoked by my collection of slides of weeds which I have been collecting and improving for some time. They generally began with the exclamation:

"Surely, that's not a weed!"
This was usually amplified by one of the following alternative classifications of the plant in question (which I have organised roughly into these 8 groups and illustrated with some examples of particular weeds).

1 Garden horticulture — **It's a garden flower!** **It's a flowering plant in my garden!**
(*Gladiolus* species; Freesia; Sparaxis; Iris; Arum; Periwinkle; Various Broom species; Cape Tulip; *Geranium* species; Wild Rose; Tutsan; Broom; Swan Plant; Ivy; Honeysuckle; Morning Glory; Bridal Creeper)

2 Ornamental — **It's a cactus!** **It's a succulent!** **It's a rockery plant!** **It's an ornamental plant!** **It's a palm!**
(Wheel Cactus; *Opuntia* species; *Aloe* species & other ornamental cacti; Crassula; Sedum; Cotyledon; Date palm; Canary Island Palm)

3 Useful plants — **It's a useful plant!** **It's a tree! It's a good shade tree!** **It's a fruit tree!** **It's a vegetable!** **It's a herb/medicinal plant!** **It's a lawn grass!** **It's part of a revegetation program!** **It's salt-tolerant!**
(Tree of Heaven; Robinia; NSW Black Wattle; *Pinus radiata*; Boneseed (was used to revegetate sand dunes in NSW after beach sand mining!); Phalaris; Pampas Grass; Veldt Grass; Marrum Grass; Sea Barley Grass; Salt Couch; Tall Wheat Grass; Salt-marsh Grass; Old-man Saltbush; Peach; Apricot; Prunus; Globe Artichoke; *Mentha* species & hybrids; Salsify; Garlic; Horehound; Evening Yellow Primrose; St John's Wort)

4 Agricultural — **It's a pasture plant!** **It's Phalaris; Paspalum; Clover; Lucerne! (etc.)** **It's a productive plant!** **It's a fodder crop/plant!**
(Clover; Phalaris; Lucerne; Paspalum; Rape; Mustard; Sunflower; Lupin; Tagasaste (could Cape Broom have been mistaken for this fodder plant and planted deliberately on farms? It's eaten by kangaroos and wallabies - it looks very similar to the casual observer, eg. during Ian Higgins' excursion to his revegetation & grazing trial plot at Sedgwick, visitors to the site wondered why Tree Lucerne had been planted all along the roadsides); Prickly Pear - a spineless variety of *Opuntia stricta* was sometimes used as emergency drought fodder for cattle)

5 Australian native — **It's a native plant!**
(*Melaleuca armillaris*; *Melaleuca hypericifolia*; *Callistemon* sp.; Cootamundra Wattle; Sallow Wattle; Spotted Gum; NSW Ironbark (*E. sideroxylon*); plants from other states or other areas in Victoria - this happens in reverse of course, with NSW, WA , and Qld. residents choosing to grow plants from other states too and so helping to homogenise Australia's native vegetation)

6 **Plant Technology** **It's a special hybrid!**
It's a new cross!
It's been specially created by selection!
It's a new variety!
It's in the latest garden catalogue!
(Garden Grevilleas; Garden Callistemons; Canola; Garden Plant of the Year; the Latest Fashion; *Oenothera* species and varieties)
It's been produced by Genetic Engineering/ DNA Recombination!
(there is great potential for new weeds here! Weeds of the future - created by modern science!)

7 **Historical** **It's a Cottage Garden plant!**
It's a plant with historical connections!
(Mullein; Honeysuckle; Ivy?; Periwinkle; Belladonna; Pepper-tree; Agave; *Pinus* species)

8 **Easy to grow (& cheap?)** **I bought it from the Garden Nursery!**
I bought it at the church fete!
I bought it at the school stall!
(These are often easily-propagated plants, both by professionals and by amateur gardeners. They are also usually hardy plants, well able to withstand difficult conditions and rough handling. This often tends to make them very successful weeds if they are ever allowed to escape from captivity!)

It is a weed! Because:

It's Chinese Scrub! The Chinese brought it with them during the Gold Rush era, didn't they? No they didn't! This plant is more properly referred to as Drooping Cassinia (*Cassinia arcuata*). It is a locally indigenous plant in this district and through the Central Goldfields forests.
It's a grass! All grasses are weeds aren't they? No, they are not! Many native Australian and introduced grasses are very useful plants. However, some agricultural grasses have been allowed to escape from cultivation and have become serious weeds along roads and by invading remnants of natural bushland.
It's growing in a drain, ditch, irrigation channel; dam; swamp; etc! Bulrush; Phragmites; various native rushes & sedges are locally indigenous native plants.
It's growing in my pasture!
It's growing in the lawn!
It's growing in the vegetable garden!
It's growing amongst my flowers!
It's only scrub!
It's a Woody Weed! That's not a native plant - it's a woody weed! This response is more likely to come from a farmer who uses native rangelands for his grazing animals. The more palatable plants are invariably grazed out first leaving those which are less attractive to sheep and cattle. These remnants are often the only plants which are able to survive under heavy grazing pressure. Without them, there would be no vegetation to protect the soil from erosion. Rather than simply being labelled as a woody weed, these plants should be used as indicators of grazing pressure to ensure that over-grazing doesn't occur!

Weeds are so successful! Can we take advantage of this and make some use of the weedy behaviour of plants?

1 Their vigorous growth in difficult conditions means that there is often a weedy ground cover in areas which have been disturbed. The soil in many of these areas requires some form of treatment before it can be expected to produce a more or less normal cover of indigenous vegetation. Where there's a soil problem, don't spray the weeds! At least, while some plants (weeds) are growing there, they are retaining the soil and conserving its quality, however poor it may appear to be! Destroying weed growth in such circumstances may create a soil erosion problem where none existed before.

2 Water weeds indicate the availability of plant nutrients - thus they may be used as indicator plants for assessing water quality, fertiliser run-off, organic pollution of water-ways, etc. It may be possible to trace the sources of nutrient enrichment and, having identified the origin of the problem, work towards fixing it at the source.

3 Native (locally indigenous) pioneering species of plants may provide useful soil conditioning and protection for developing trees and shrubs which are nearly always seen as more desirable. Something approaching a natural succession will require patience from the revegetators but may be more effective in the long run at establishing satisfactory regrowth of native vegetation.

4 Weeds thrive on neglect! Almost unnoticed, they continue growing until, eventually, they become recognised as a significant problem and worth worrying about! Having realised this should encourage us to give them more attention, especially when they are small and more easily controlled! By contrast, the 'official' response is often: "That's not a big enough problem yet to be worth our time and effort to fix! We can't justify giving priority to insignificant weed infestations! To be worth our while and justifiable, the weed has to be regarded as one of high priority!" (To be fair, this was the response to our earlier requests for something to be done about the advance of the Indian Myna in this region, rather than to our complaints about weed invasions, although in 1993, Jane was told just this in response to her observation that a small number of Thorn Apple plants had been introduced to a disturbed area of the Bendigo Creek. Also, when the Vermin & Noxious Weeds Department existed, many individual workers, through their vigilance and rapid response to the early stages of weed infestations were very effective at preventing weed problems from developing. I had personal experience of this after reporting the presence of Boneseed in the Kennington Forest - the response was interested, rapid, and effective, with follow-up visits to deal with germinating seedlings).

5 Weeds should be admired for their ability to survive - they are tough, persistent plants - however, although we may appreciate their ability to survive, they shouldn't be encouraged!

Some Weed Control Strategies

It's not just a matter of poisoning them! There are many other possibilities that are worth trying.

- Recognise and identify the suspected weed. This is the first essential step.
- Physical control
- Chemical control by herbicides & other plant poisons
- Biological control
- Cultural control
- Integrated control
- Prevent flowering
- Prevent seeding
- Avoid spreading by further disturbance and dispersal of contaminated soil, by seeds or bulbs/bulbils or by root, stem, leaf or fruit fragments which are able to regenerate.
- Avoid creating a seed-bed for the weed seeds which are already in the soil by minimising further soil disturbance during the control of weeds. If weeds have been established for some time in a particular location, them it must be assumed that there will be a seed bank of weed seeds in the soil. With this in mind, it is very important to remove established weeds with the least soil disturbance possible and by doing the least damage to established non-weed species growing nearby. Any ground disturbance must then be repaired carefully or covered with mulch, preferably naturally occurring mulch that has accumulated nearby.
- Avoid methods which also destroy other non-target plants
- Don't remove weeds without planning for their replacement
- Burning?
- Grazing?

Bush regeneration techniques are worth considering (The main focus is not on the weeds but on the desired outcome - regeneration of indigenous bushland as far as this is possible!)
Consider using the Bradley method for suppressing weeds and encouraging indigenous remnants.

Some weed categories

Cacti & Succulents
Sedges
Shrubby plants
Thistles
Noxious plants/weeds
Horticultural weeds
Grasses
Water-weeds
Trees
Daisies
Poisonous plants
Environmental weeds
Rushes
Docks
Creepers
Ferns (Bracken; Azolla; Salvinia)
Agricultural weeds

References

Parsons. Noxious Weeds of Victoria
Parsons. Noxious Weeds of Australia
Lamp & Collett. Weeds
Weeds, Inkata Press
Carr. Environmental Weeds
Weeds of our Bushland
Bradley. Bringing back the Bush

May Club Meeting - Guest Speaker: Warwick Bates

Author: Sabine Wilkens

Warwick Bates did it again - transported the audience into the 1960's with his slides and memories from his time as a jackeroo at various cattle stations in the top end. For those members who went to the Club meeting in February (members slide night) some of the scenes were already familiar but the stories were new;

After leaving school, Warwick first went to Nicholson station in Western Australia. It was one of the smallest properties in the area, but the paddocks were still 20 x 20 miles! Most of the slides were of a much larger station (Manbulloo) near Kathrine which measured 1600 square miles. Some were from Rockland's, a property in which horses had to be dipped each time they crossed from one end to the other because one half was in Queensland and the other half in the Northern Territory.

Food is scarce for cattle at certain times of the year and to provide green pick, the country was regularly set alight by the men sitting at the back of the truck and throwing out burning matches. I can't imagine they were short of volunteers for this job! The newly greened country is then a heaven not just for cattle but also for bird watchers.

We saw slides of several stock camps, and we heard of clever horses which inspite of the bells on their feet sneaked away from these camps without making a sound and had to be caught at 4am. Warwick demonstrated elegantly how to catch a horse in those surroundings and told us also how not to catch one.

There were lizard like the Ta-Ta-lizard which runs off, turns around and then waves at you, the blanket lizard, which was eagerly sought after for the pet market, and remains of goanna meals which are excellent bush food.

Every now and then a bullock was killed for food; never from your own of course as there always seemed to be stray cattle around which were fair game. The meat house was interesting, four sticks in the ground and a platform covered in leafy eucalypt twigs which served to keep the majority of the flies off. Anyway, if the meat did get infested they just cut that bit off (!)

Somebody in the audience asked about the supply of vegetables: these were scarce apparently and mostly had to be flown in. Warwick developed scurvy a few times so the supply can't have been too good.

Warwick obviously had a rough and fascinating time up there. He said this country is like a disease: you go up there, after a while you get sick of it and leave but sooner or later you will want to go back again, and the withdrawal symptoms are terrible.

The times of mustering on horseback are almost over, as today helicopters and four-wheel drives are used for these vast areas. We saw a lot of slides that night, but there are lots more I believe and maybe Warwick will give us another glimpse of this bygone era some other time.

Diary
All general and Bird Observers Group meetings are held at the Department of Food and Agriculture, corner Taylor Street and Midland Highway Epsom, unless otherwise indicated.

General Meeting
Wednesday June 8, 7:30pm. Ern Perkins, of the Castlemaine Field Nats, will give us a talk on the Loddon-Campaspe catchment.

Bird Observers Group
Friday June 3, 7:30pm. A video of wetland birds, including crakes will be shown.

Friday July 1, 7:30pm. Dr Michael Hutchison will speak about the RAOU Murray-Darling Basin Waterbird Project

Excursions
Sunday June 19. Eric Wilkinson will lead an excursion to the Huntly-Bagshot area to look at geological evidence of the incursion of the sea in this area. We will be leaving Havlin Street (outside the Ministry of Education complex) at 1:00pm. Please note that this trip is on the third Sunday of June.

Supper
The usual arrangements for supper are as follows: members either bring a plate or pay $1 for supper. This small amount is used by the treasurer to reimburse members who purchase essential supper supplies.

July Excursion - Kooyoora State Park

Date: Sunday 17 July

Location: Melville Caves area, about 70km via Inglewood and Kingower.

Meeting Place: 9.00am Havlin Street (please note earlier time)

Leader: John Lindner

Subject: Remains of Aboriginal occupation of the Mt Kooyoora area and general plants, birds etc.

Please bring: warm clothes, raincoat, morning and afternoon snacks, lunch

Program:

Morning - Visit several of the largest and best preserved rock shelters in the Melville Caves area. A short walk of 3km round trip or 2.5km return, whichever is preferred.

Lunch - At Melville Caves picnic area if wet, but if fine, at Barry Rock, with a walk of about half a kilometre to get there.

Afternoon - Visit examples of rock shelters, rock wells and scarred ("canoe") trees in the Melville Caves area. A walk of about 5km.